

BESTEN C HENRY JR  
 Form 4  
 April 22, 2008

**FORM 4**

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549**

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
**BESTEN C HENRY JR**

2. Issuer Name and Ticker or Trading Symbol  
**ARCH COAL INC [ACI]**

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)  
**ONE CITYPLACE DRIVE, SUITE 300**

3. Date of Earliest Transaction (Month/Day/Year)  
**04/18/2008**

\_\_\_\_ Director \_\_\_\_\_ 10% Owner  
 Officer (give title below) \_\_\_\_\_ Other (specify below)

Senior VP-Strategic Dev.

(Street)  
**ST. LOUIS, MO 63141**

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

(City) (State) (Zip)

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
|                                 |                                      |  | Code                           | V Amount (D) Price  |   |  |                                   |
| Common Stock <sup>(1)</sup>     | 04/18/2008                           |  | M                              | 7,025 A \$ 9.08   | 37,867  | D  |                                   |
| Common Stock <sup>(1)</sup>     | 04/18/2008                           |  | S                              | 7,025 D \$ 58   | 30,842  | D  |                                   |

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3)           | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|---|--|---|-------------------------------|
| Employee stock options (right to buy) <sup>(1)</sup> | \$ 9.08  | 04/18/2008                           |  | M                              | 7,025   | <u>(2)</u> 02/29/2012                                    | Common Stock  | 7,025                         |

**Reporting Owners**

| Reporting Owner Name / Address   | Relationships |           |                          |       |
|--|---------------|-----------|--------------------------|-------|
|  | Director      | 10% Owner | Officer                  | Other |
| BESTEN C HENRY JR<br>ONE CITYPLACE DRIVE<br>SUITE 300<br>ST. LOUIS, MO 63141 |               |           | Senior VP-Strategic Dev. |       |

**Signatures**

/s/ Gregory A. Billhartz,  
Attorney-in-fact 04/22/2008  
\*\*Signature of Reporting Person Date

**Explanation of Responses:**

- \* If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).
- (1) The exercise of employee stock options and sale of underlying shares of common stock by the executive officer reported on this Form 4 were effected pursuant to a Rule 10b5-1 trading plan.
- (2) The reporting person received 56,200 stock options on February 28, 2002. The stock options vested ratably over a four year period as follows: 14,050 stock options vested on February 28, 2003; 14,050 stock options vested on February 28, 2004; 14,050 stock options vested on February 28, 2005; and 14,050 stock options vested on February 28, 2006.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.